

I claim:

1. A detection system for a marine vessel, comprising:

a first electromagnetic radiation sensor which is sensitive to a first

5 preselected range of wavelengths, said first electromagnetic radiation sensor being attachable to said marine vessel and directed toward a first target area to receive electromagnetic radiation from within said first target area, said first electromagnetic radiation sensor being configured to provide a first signal which is representative of electromagnetic radiation within said first preselected range of 10 wavelengths emanating from within said first target area;

a second electromagnetic radiation sensor which is sensitive to a second

preselected range of wavelengths, said second electromagnetic radiation sensor being attachable to said marine vessel and directed toward a second target area to receive electromagnetic radiation from within said second target area, said second electromagnetic radiation sensor being configured to provide a second signal 15 which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area; and

a processor connected in signal communication with said first and second

electromagnetic radiation sensors and configured to receive said first and second 20 signals, said processor being configured to respond to a preselected change in said first or second signals with a change in the operation of said marine vessel.

2. The detection system of claim 1, wherein:

said first preselected range of wavelengths extends from one micrometer to

25 one millimeter.

3. The detection system of claim 1, wherein:

 said first preselected range of wavelengths includes the infrared portion of the electromagnetic spectrum.

5 4. The detection system of claim 1, wherein:

 said first preselected range of wavelengths is generally equal to said second preselected range of wavelengths.

5. The detection system of claim 1, wherein:

10 said second preselected range of wavelengths extends from 400 nanometers to 700 nanometers.

6. The detection system of claim 1, wherein:

15 said second preselected range of wavelengths includes the visible portion of the electromagnetic spectrum.

7. The detection system of claim 1, wherein:

 said first and second electromagnetic radiation sensors are attachable to a transom of said marine vessel.

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8. The detection system of claim 1, further comprising:

 a marine propulsion device attached to a transom of said marine vessel, said first and second electromagnetic radiation sensors being attached to said marine propulsion device.

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9. The detection system of claim 1, further comprising:

 a marine propulsion device attached to a transom of said marine vessel.

10. The detection system of claim 1, wherein:

 said first and second target areas at least partially overlap each other.

5 11. The detection system of claim 1, further comprising:

 a third electromagnetic radiation sensor which is sensitive to said first preselected range of wavelengths, said third electromagnetic radiation sensor being attachable to said marine vessel and directed toward a third target area to receive electromagnetic radiation from within said third target area, said third

10 electromagnetic radiation sensor being configured to provide a third signal which is representative of electromagnetic radiation within said first preselected range of wavelengths emanating from within said third target area;

 a fourth electromagnetic radiation sensor which is sensitive to said second preselected range of wavelengths, said fourth electromagnetic radiation sensor

15 being attachable to said marine vessel and directed toward a fourth target area to receive electromagnetic radiation from within said fourth target area, said fourth electromagnetic radiation sensor being configured to provide a fourth signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said fourth target area; and

20 said processor being connected in signal communication with said first, second, third and fourth electromagnetic radiation sensors and configured to receive said first, second, third and fourth signals, said processor being configured to respond to a preselected change in said first or third signals with a change in the operation of said marine vessel.

12. The detection system of claim 11, wherein:

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said processor is configured to refrain from changing said operation of said marine vessel if said second or fourth signals indicate a presence of visible light within said third or fourth target areas, respectively.

13. The detection system of claim 1, wherein:

said processor is a microprocessor which is programmed to respond to said first and second signals.

10 14. The detection system of claim 1, wherein:

said processor is an electronic circuit.

15. A detection system for a marine vessel, comprising:

a first electromagnetic radiation sensor which is sensitive to a first
15 preselected range of wavelengths, said first electromagnetic radiation sensor being attachable to said marine vessel and directed toward a first target area to receive electromagnetic radiation from within said first target area, said first electromagnetic radiation sensor being configured to provide a first signal which is representative of electromagnetic radiation within said first preselected range of
20 wavelengths emanating from within said first target area;

a second electromagnetic radiation sensor which is sensitive to a second preselected range of wavelengths, said second electromagnetic radiation sensor being attachable to said marine vessel and directed toward a second target area to receive electromagnetic radiation from within said second target area, said second electromagnetic radiation sensor being configured to provide a second signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area;

a third electromagnetic radiation sensor which is sensitive to said first preselected range of wavelengths, said third electromagnetic radiation sensor being attachable to said marine vessel and directed toward a third target area to receive electromagnetic radiation from within said third target area, said third

5 electromagnetic radiation sensor being configured to provide a third signal which is representative of electromagnetic radiation within said first preselected range of wavelengths emanating from within said third target area;

a fourth electromagnetic radiation sensor which is sensitive to said second preselected range of wavelengths, said fourth electromagnetic radiation sensor

10 being attachable to said marine vessel and directed toward a fourth target area to receive electromagnetic radiation from within said fourth target area, said fourth electromagnetic radiation sensor being configured to provide a fourth signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said fourth target area; and

15 said processor being connected in signal communication with said first, second, third and fourth electromagnetic radiation sensors and configured to receive said first, second, third and fourth signals, said processor being configured to respond to a preselected change in said first or third signals with a change in the operation of said marine vessel.

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16. The detection system of claim 15, wherein:

said first and second preselected range of wavelengths each include the infrared portion of the electromagnetic spectrum, said third and fourth preselected ranges of wavelengths each include the visible portion of the electromagnetic

25 spectrum.

17. The detection system of claim 16, wherein:

 said first and second electromagnetic radiation sensors are attachable to a transom of said marine vessel.

5 18. The detection system of claim 16, further comprising:

 a marine propulsion device attached to a transom of said marine vessel, said first and second electromagnetic radiation sensors being attachable to said marine propulsion device.

10 19. The detection system of claim 15, wherein:

 said first and second target areas at least partially overlap each other.

20. The detection system of claim 16, wherein:

 said processor is configured to refrain from changing said operation of said marine vessel if said second or fourth signals indicate a presence of visible light 15 within said third or fourth target areas, respectively.

21. The detection system of claim 20, wherein:

 said processor is a microprocessor which is programmed to respond to said 20 first and second signals.

22. The detection system of claim 21, wherein:

 said processor is an electronic circuit.

25 23. A system for detecting people proximate marine vessel, comprising:

means for providing a first electromagnetic radiation sensor which is sensitive to a first preselected range of wavelengths, said first electromagnetic radiation sensor being attachable to said marine vessel;

5 means for directing said first electromagnetic radiation sensor toward a first target area to receive electromagnetic radiation from within said first target area;

means for configuring said first electromagnetic radiation sensor to provide a first signal which is representative of electromagnetic radiation within said first preselected range of wavelengths emanating from within said first target area;

10 means for providing a second electromagnetic radiation sensor which is sensitive to a second preselected range of wavelengths, said second electromagnetic radiation sensor being attachable to said marine vessel;

means for directing said second electromagnetic radiation sensor toward a second target area to receive electromagnetic radiation from within said second target area;

15 means for configuring said second electromagnetic radiation sensor to provide a second signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area;

means for providing a processor which is connected in signal communication with said first and second electromagnetic radiation sensors to receive said first and second signals; and

means for responding to a preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

25 24. The system of claim 23, wherein:

said first preselected range of wavelengths includes the infrared portion of the electromagnetic spectrum.

25. The system of claim 24, wherein:

 said second preselected range of wavelengths includes the infrared portion of the electromagnetic spectrum.

5 26. The system of claim 24, wherein:

 said second preselected range of wavelengths includes the visible portion of the electromagnetic spectrum.

27. The system of claim 26, wherein:

10 said processor is a microprocessor which is programmed to respond to said preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

28. The system of claim 26, wherein:

15 said processor is an electronic circuit which is configured to respond to said preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

29. The system of claim 23, further comprising:

20 means for providing a third electromagnetic radiation sensor which is sensitive to a third preselected range of wavelengths, said third electromagnetic radiation sensor being attachable to said marine vessel;

 means for directing said third electromagnetic radiation sensor toward a third target area to receive electromagnetic radiation from within said third target area;

means for configuring said third electromagnetic radiation sensor to provide a third signal which is representative of electromagnetic radiation within said third preselected range of wavelengths emanating from within said third target area;

means for providing a fourth electromagnetic radiation sensor which is

5 sensitive to a fourth preselected range of wavelengths, said fourth electromagnetic radiation sensor being attachable to said marine vessel;

means for directing said fourth electromagnetic radiation sensor toward a fourth target area to receive electromagnetic radiation from within said fourth target area;

10 means for configuring said fourth electromagnetic radiation sensor to provide a fourth signal which is representative of electromagnetic radiation within said fourth preselected range of wavelengths emanating from within said fourth target area;

means for providing a processor which is connected in signal

15 communication with said first, second, third, and fourth electromagnetic radiation sensors to receive said first, second, third, and fourth signals; and

means for responding to a preselected change in the combined status of said first, second, third, and fourth signals by changing an operation of said marine vessel.

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30. The system of claim 29, further comprising:

means for attaching said first, second, third, and fourth electromagnetic radiation sensors to said marine vessel.

25 31. A system for detecting people proximate marine vessel, comprising the steps of:

providing a first electromagnetic radiation sensor which is sensitive to a first preselected range of wavelengths, said first electromagnetic radiation sensor being attachable to said marine vessel;

directing said first electromagnetic radiation sensor toward a first target area

5 to receive electromagnetic radiation from within said first target area;

configuring said first electromagnetic radiation sensor to provide a first signal which is representative of electromagnetic radiation within said first preselected range of wavelengths emanating from within said first target area;

10 providing a second electromagnetic radiation sensor which is sensitive to a second preselected range of wavelengths, said second electromagnetic radiation sensor being attachable to said marine vessel;

directing said second electromagnetic radiation sensor toward a second target area to receive electromagnetic radiation from within said second target area;

15 configuring said second electromagnetic radiation sensor to provide a second signal which is representative of electromagnetic radiation within said second preselected range of wavelengths emanating from within said second target area;

providing a processor which is connected in signal communication with said first and second electromagnetic radiation sensors to receive said first and second signals; and

20 responding to a preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

32. The system of claim 31, wherein:

said first preselected range of wavelengths includes the infrared portion of

25 the electromagnetic spectrum.

33. The system of claim 32, wherein:

 said second preselected range of wavelengths includes the infrared portion of the electromagnetic spectrum.

5 34. The system of claim 33, wherein:

 said second preselected range of wavelengths includes the visible portion of the electromagnetic spectrum.

35. The system of claim 34, wherein:

10 said processor is a microprocessor which is programmed to respond to said preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

36. The system of claim 34, wherein:

15 said processor is an electronic circuit which is configured to respond to said preselected change in the combined status of said first and second signals by changing an operation of said marine vessel.

37. The system of claim 31, wherein:

20 providing a third electromagnetic radiation sensor which is sensitive to a third preselected range of wavelengths, said third electromagnetic radiation sensor being attachable to said marine vessel;

 directing said third electromagnetic radiation sensor toward a third target area to receive electromagnetic radiation from within said third target area;

25 configuring said third electromagnetic radiation sensor to provide a third signal which is representative of electromagnetic radiation within said third preselected range of wavelengths emanating from within said third target area;

providing a fourth electromagnetic radiation sensor which is sensitive to a fourth preselected range of wavelengths, said fourth electromagnetic radiation sensor being attachable to said marine vessel;

5 directing said fourth electromagnetic radiation sensor toward a fourth target area to receive electromagnetic radiation from within said fourth target area;

 configuring said fourth electromagnetic radiation sensor to provide a fourth signal which is representative of electromagnetic radiation within said fourth preselected range of wavelengths emanating from within said fourth target area;

10 providing a processor which is connected in signal communication with said first, second, third, and fourth electromagnetic radiation sensors to receive said first, second, third, and fourth signals; and

 responding to a preselected change in the combined status of said first, second, third, and fourth signals by changing an operation of said marine vessel.

15 38. The system of claim 37, further comprising:

 attaching said first, second, third, and fourth electromagnetic radiation sensors to said marine vessel.